

Distillery Warehouse Emissions

McCormick Distilling

Permitting Authority: Missouri Department of Natural Resources

Effective Date: 11/13/2017

Permit Number: 112017-003

Address: One McCormick Lane, Weston, MO 64098

Permit Link: <https://dnr.mo.gov/env/apcp/permits/docs/mccormick-weston2017cp.pdf>

McCormick's modifications in this permit included expanding aging barrel storage capacity from 5,800 barrels to 18,500 barrels. The aging process contributes the most VOC emissions at the facility which emits VOCs above de minimus levels. The application states, "VOC emissions from barrel aging were calculated using an emission factor of 6.9 lb/bbl(barrels)/yr found in AP-42, Section 9.12.3-1 'Distilled Spirits.'" No control equipment was required by the permit.

Templeton Rye Spirits

Permitting Authority: Iowa Department of Natural Resources

Effective Date: 8/30/2017

Project Number: 17-133

Address: 209 East 3rd Street Templeton, Iowa 51463

Permit Link:

<https://programs.iowadnr.gov/airqualityconstructionpermits/Pages/ConstructionPermit/SearchResult.aspx>

Templeton Rye Spirits received a construction permit on 8/30/17 that contained emission limits on VOC emissions from the aging and warehousing process to maintain emissions below the PSD major threshold. The limit was set at 8.94 lb/hr (39.2 tpy). Discussion of control technology was not included in the permit. A title V permit for the facility is currently in technical review.

Whistle Pig LLC

Permitting Authority: Vermont Agency of Natural Resources

Effective Date: 11/20/2018

Permit Number: AOP-18-008

Address: 2139 Quiet Valley Road Shoreham, VT 05770

Permit Link: <https://anrweb.vt.gov/DEC/AirFacilities/DownloadFile.aspx?FPD=2619&option=view>

Whistle Pig LLC received an operating permit on 11/20/2018 that includes a limit on the annual inventory of barrels stored at the facility in order to limit VOC emissions and maintain them below the maximum allowable ethanol emission rate of 20.367 tpy. This limit is an average annual inventory of 5,847 barrels. The permit states that based on levels of emissions, there is no RACT applicable to the source. There is also language in the permit stating the Agency suggests that all non-fugitive emission points are exhausted vertically through a stack which extends a minimum of 4 ft although it is unclear if that includes the emissions from the aging process.

MGPI of Indiana

Permitting Authority: Indiana Department of Environmental Management

Effective Date: 5/11/2015

Permit Number: 029-35496-00005

Address: 7 Ridge Ave Lawrenceburg, IN 47025

Permit Link: <https://permits.air.idem.in.gov/35496F.PDF>

MGPI of Indiana was issued a significant modification permit on 5/11/2015 which counted warehouse emissions in their calculations for VOC emissions. There are three BACT limits included for operations at the site: the VOC emissions from the DDG dryer shall be controlled by an RTO; the RTO shall operate with an overall control efficiency, which includes capture and destruction efficiencies, of not less than 98%; and the VOC emissions from the DDG dryer shall not exceed 1.91 lb/hr. There are no listed control technologies for the aging warehouses.

PM Controls: In the compliance determination section, it is stated that in order to control PM emissions, “the wet scrubbers and cyclones for particulate control shall be in operation and control emissions from the Rotary Dryers and Transport System at all times the facilities are in operation” and that “the baghouses for particulate control shall be in operation and control emissions from [the corn receiving and storage system, storage silos and surge hoppers, air transport system and scale to rail car loading area, and air transport system and scale to the truck loading area] at all times that the facilities are in operation.”

It is important to note that the renewal for the operating permit in 2020 listed the aging warehouse VOC emissions as fugitive emissions. See notes below on court decision and Region V history of fugitive/non-fugitive warehouse emissions.

E&J Gallo Winery Spirits Plant

Permitting Authority: San Joaquin Valley Air Pollution Control District

Effective Date: 3/9/2020

Permit Number: N1183001

Address: 200 Yosemite Ave Modesto, CA 9535

Permit Link: EPS

E&J Gallo Winery Spirits Plant operates under a title V permit and produces wine and brandy. The brandy aging process is similar to the whiskey aging process. The aging process releases 31.7 tpy VOC after controls. The aging facility is contained in a permanent total enclosure pursuant to EPA Method 204 and uses a regenerative thermal oxidizer to capture VOC emissions with a 98% efficiency.

O’Neill Beverages Company

Permitting Authority: San Joaquin Valley Air Pollution Control District

Effective Date: 4/11/2018

Permit Number: C-1180097

Address: 8418 S Lac Jac Ave Parlier, CA 93648

Permit Link: [http://www.sjvapcd.dst.ca.us/notices/Docs/2018/04-11-18_\(C-1180097\)/notice.pdf](http://www.sjvapcd.dst.ca.us/notices/Docs/2018/04-11-18_(C-1180097)/notice.pdf)

O’Neill Beverages Company is a PSD major source that produces wine and brandy. Their aging emissions from brandy total 51.4 tpy of VOCs. No control technology is used, but the brandy is stored in sealed stainless-steel tanks in enclosed buildings.

Relevant Court Decisions

Source: Joseph E. Seagram & Sons, Inc.

Permitting Authority: Indiana Department of Environmental Management (IDEM)

Effective Date: 8/4/2004

Permit Number: T-137-6928-00011

Address: 7 Ridge Ave, Lawrenceburg, IN 47025

Decision Link: <https://www.in.gov/oea/decisions/2004oea58.pdf>

In 1999, a [Title V Permit](#) was issued to the source in which VOC emissions from the warehouse were included in PTE emission calculations. In a response to comments included in the permit, IDEM stated that Region V did not consider warehouse emissions fugitive: "IDEM and US EPA Region V have determined that the VOC emissions from the whiskey aging process are not fugitive. The definition of fugitive emissions is those which cannot reasonably be contained. Since the emissions are already contained by a warehouse, they are by definition not fugitive. Containment is not an issue of whether the emissions can be reasonably controlled. The argument that the costs of control would be prohibitive and that controlling the emissions would adversely affect the natural whiskey aging process is not an issue because IDEM is not making a determination of whether controlling the emissions is reasonable. Therefore, this source is subject to the Part 70 Operating Permit Program."

In 2004, the ruling was made that the VOC emissions from the warehouses are fugitive because, although they pass through the functional equivalent of a vent, there is no way that they can be reasonably collected. It was also stated that at the time, there was no distillery currently collecting warehouse/rickhouse emissions. In 2005, a [Minor Source Operating Permit](#) was issued to the source. As of 2010, the source is no longer operating and was issued a [revocation](#).

Related Discrepancies in Region V:

As included above, in 2015 MGPI of Indiana was issued a [Title V SSM Permit](#) that counted warehouse emissions as non-fugitive and includes them in VOC emissions calculated in Appendix A (page 286 of permit pdf). In 2020, the same source's [Title V Renewal Permit](#) counts warehouse emissions as fugitive as shown in the VOC fugitive emissions calculated in Appendix A (page 302 of permit pdf). In 2019, an additional MGPI Indiana location (Sunman, IN) was issued a [Minor Source Operating Permit](#) in which VOC warehouse emissions are considered fugitive and states "U.S. EPA has not identified any reasonably available control technology (RACT) for ethanol emissions from alcohol beverage aging warehouses" in the permit.

Distilleries with Fugitive Warehouse Emissions

Facility Name	Permitting Authority	Year Permitted
Heaven Hill Distilleries – Bernheim Facility	Louisville Metro Air Pollution Control District	2019
Pernod Ricard USA Bottling, LLC	Arkansas Department of Environmental Quality	2013
MGPI of Indiana (Lawrenceburg - 2020 renewal)	Indiana Department of Environmental Management	2020

MGPI of Indiana (Sunman)	Indiana Department of Environmental Management	2019
Joseph E. Seagram & Sons, Inc (no longer active)	Indiana Department of Environmental Management	2006
Jack Daneil Lem Motlow Proprietor*	TN Department of Environment and Conservation	2017
Destilería Serrallés, Inc.	Puerto Rico DRNA	2007

*Per a letter from EPA to TN APC in 1994, EPA HQ stated that whiskey emissions are fugitive ([TN APC letter 1994](#))

Additional Information

- Per a [Whisky Wash Article](#) Buffalo Trace has rickhouses made from wood, tin, brick, and concrete
- The Distilled Spirits Council of the United States (DISCUS) “Recommended Fire Protection Practices for Distilled Spirits Beverage Facilities” manual requires either mechanical or natural ventilation to keep the concentration of vapors in the air at or below 25 percent of the lower flammable limit ([NFPA Article](#)) - is this implying that there is a mechanical ventilation that is feasible for distilleries to have in place?
 - The manual is non-enforceable because in the intro it says “This publication is a suggested, voluntary guide for application primarily to new installations of distilled spirits production plants, including storage and warehouse facilities. It is not intended in any way to be an industry standard or code for regulatory purposes.”
 - The 2020 version of manual is \$250 for federal employees – could only find table of contents ([DISCUS Manual TOC](#))